INSECTARY
NS Dept. of Natural Resources

Insectary Notes

September/October 2008

From the Editor

This issue we have the beginning of the results from our pheromone trap surveys. The spruce budworm pheromone trap survey results were a bit puzzling but we will continue to survey and see what the L-2 results show. The gypsy moth delta trap survey remains consistent for most areas of the province. The gypsy moth permanent trap results will be available in the next issue of the newsletter.

Gina has begun working on the National Forest Pest Strategy and has provided some information on the basis for its development and implementation. "Forest Pests Go National."

Til next time,

Jacqui

Editing . . . a Rewording Activity

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Say What and Quotes . . .

What do you call 10 rabbits walking backwards? ... A receding hare line.

Never, under any circumstances, combine a sleeping pill and a laxative on the same night. -D. Berry

Don't sweat the petty things and don't pet the sweaty things. -G. Carlin

Never do card tricks for the group you play poker with. -Unk.

OK, so what's the speed of dark? -Unk.

If you think your particular troubles are too heavy and too traumatic to laugh about, remember that laughing is like changing a baby's diaper. It doesn't solve any problems permanently, but it makes things more acceptable for a while. -B. Johnson

What happens if you get scared half to death twice? -Unk.

The math teacher saw that little Johnny wasn't paying attention in class. She called on him and said, "Johnny! what are 4, 2, 28 and 44?" Little Johnny quickly replied, "NBC, CBS, HBO and the Cartoon Network!"

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Editor: Jacqui Gordon (902.758.7014) gordonjm@gov.ns.ca

Project Updates

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Spruce Budworm Pheromone Trap Survey
Jim Rudderham

The spruce budworm pheromone traps have all been collected for 2008. Thank-you to all the Pest Detection Officers (PDO's) who took part and helped out. This year there were only 14 positive traps out of 150. Last year there were 59 positive traps from the same 150. There could be many reasons why the catch is down. Too wet, too cold, too hot, too dry, spruce beetle killing the white spruce. Take your pick of reasons. We will continue to monitor and report the results. We have collected at least three L2 points at each positive trap location to wash for overwintering larvae. Results for the washes will follow. We have not seen spruce budworm larvae in the washes since 1994. Maybe this year.

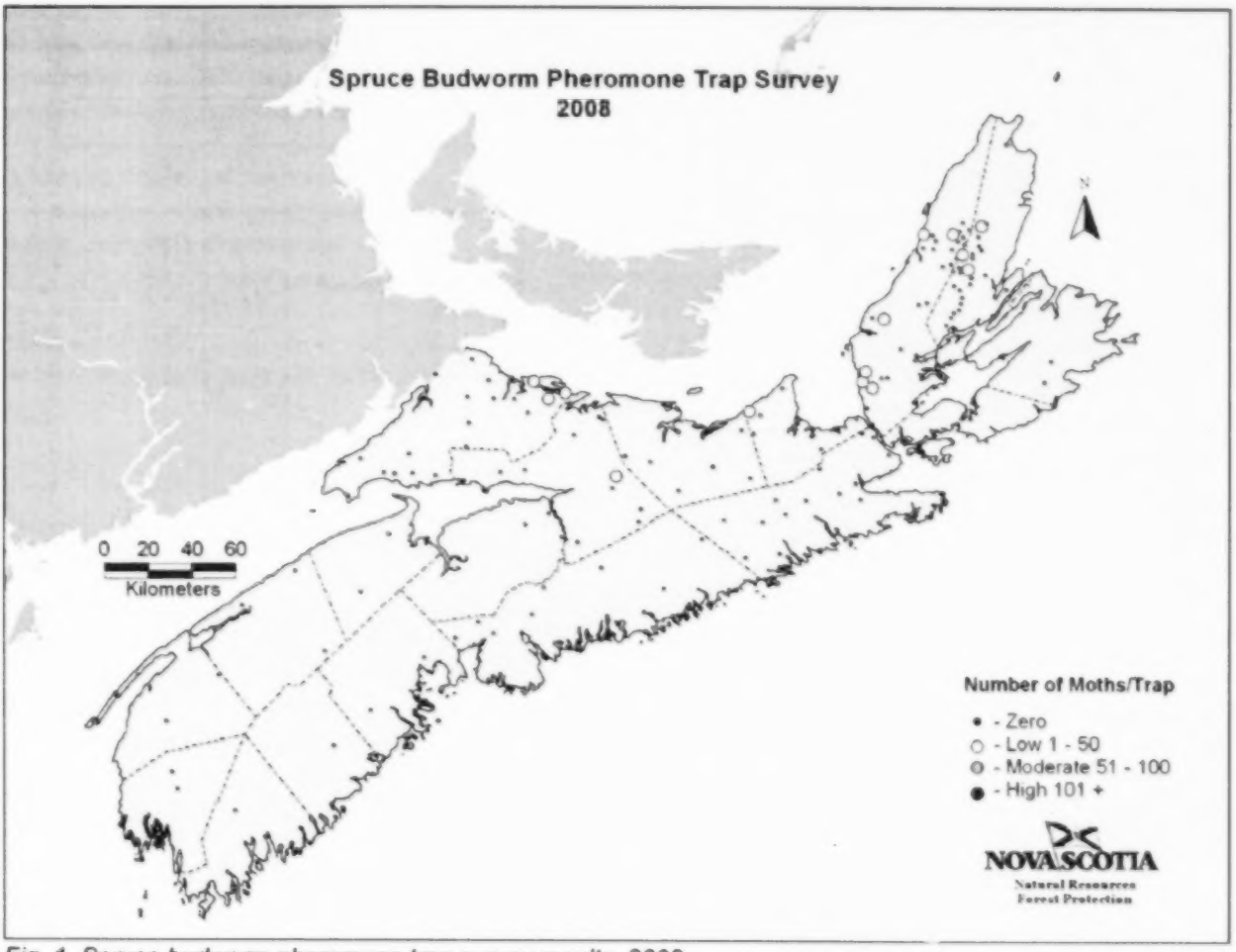

Fig. 1. Spruce budworm pheromone trap survey results, 2008.

Gypsy Moth Pheromone Trap Survey ..... Delta Traps

Jacqui Gordon

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Table 1. GYPSY MOTH DELTA TRAP RESULTS. COMPARISON OF AVERAGE CATCH PER TRAP, 2004 TO 2008.

Location	2008	2007	2006	2005	2004
Cheticamp	0.1	0.0	0.1	1.2	0.1
Inverness	0.0	0.0	0.2	0.3	0.1
Baddeck	0.2	0.0	0.0	0.0	0.0
Big Pond	0.0	0.0	0.0	0.0	0.1
St. Peters	0.0	0.0	0.0	0.0	0.0
Antigonish	0.7	0.4	0.7	0.8	1.6
Mulgrave	0.1	0.0	0.1	0.0	0.0
Guysborough	0.1	0.0	0.0	0.0	0.0
Sherbrooke	0.3	0.0	0.0	0.1	0.3
New Glasgow	15.5	9.6	6.1	4.8	3.4
Pictou	1.8	0.5	0.4	0.5	0.4
Tatamagouche	2.1	1.9	3.0	2.6	2.6
Sheet Harbour	0.2	0.2	0.1	0.4	0.9

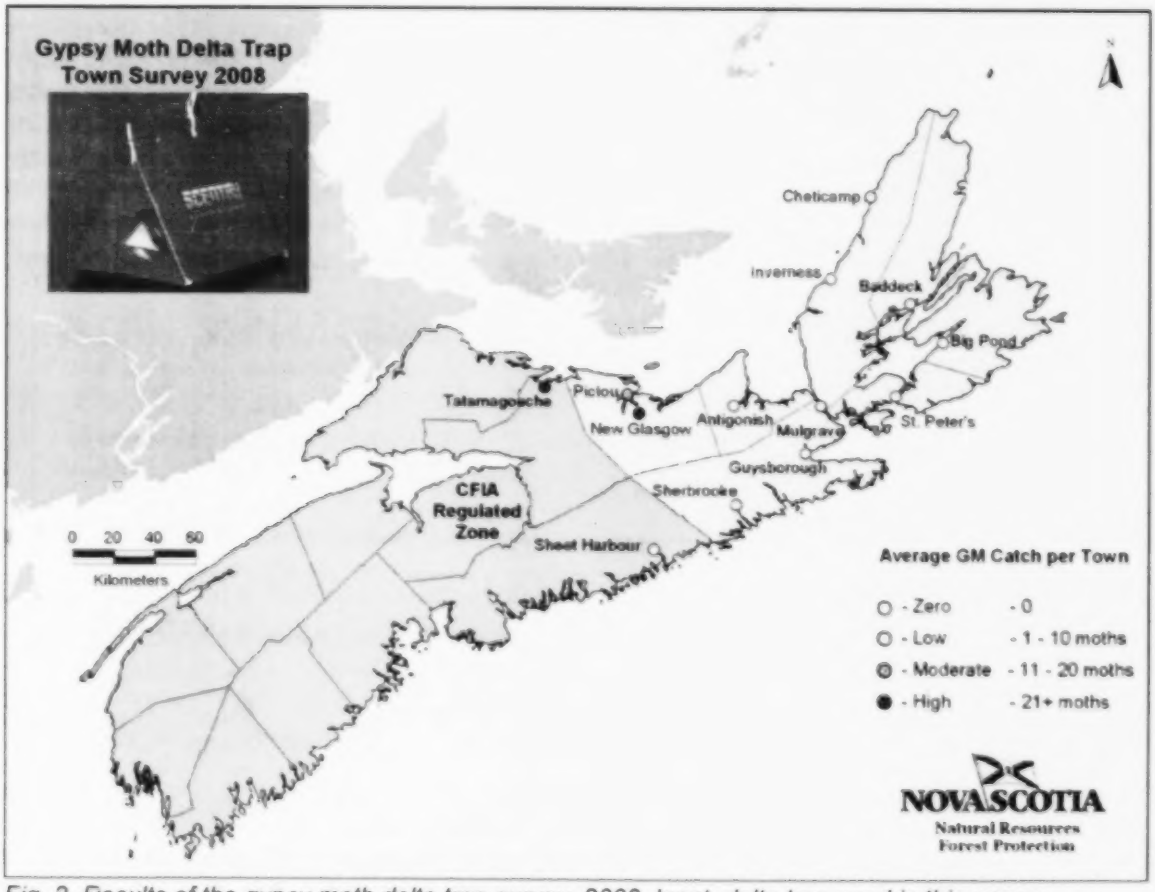

Fig. 2. Results of the gypsy moth delta trap survey, 2008. Inset, delta trap used in this survey.

Bits and Pieces

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Gypsy Moth Delta Traps (Contd.)

Jacqui Gordon

As in past years, the traps were placed in July and collected in September by regional Pest Detection Officers. This survey is used to monitor the gypsy moth population outside of the regulated area. As you can see by the previous years' data, the only town that continues on a population increase is New Glasgow. Next issue the permanent trap results will be presented.

Thanks once again to the pest detection officers who make this survey possible.

Volunteers Wanted: Must have ticks!!

Jeff Ogden

It is the first week of hunting season and that means I once again head back to Lunenburg, this year looking for volunteer hunters to give up not only their ticks but their hides . . . deer hides that is. With the increased number of hunters being encouraged to take deer from this region (Region 2A) comes the potential risk of tick-infested hides being transported throughout the province. Myself and my colleague, Dr. Robbin Lindsay, from the Public Health Agency of Canada in Winnipeg, wanted to assess the risk of new populations of blacklegged ticks becoming establish by the hunters discarding deer hides throughout Nova Scotia. We also wanted to determine how long do ticks remain on the dead animals? How many fall off? How long can they survive away from the host?

To do this study we need hides from white-tailed deer shot in the infested areas of Lunenburg County. These hides will be purchased from the hunters and placed in plastic bags, being careful to gather any ticks that may have fallen during the "seasoning" period. The hides will then be removed from the bags, placed into bins and monitored for a period of up to two weeks, being checked daily to determine tick drop rate and survivorship. We know ticks drop off dead deer but it has yet to be determined what risk these ticks may pose. With the cooperation of the local hunters the results of this study should help in answering many of our questions and quantify the risk of the spread of the blacklegged tick and lyme disease into other areas of the province.

Welcome Back!

Jim Rudderham

We welcome Andy Young and Matthew Campbell back with us again for the fall and winter. Many people think that there is nothing to do with bugs in the winter, but it is actually one of our busiest times. This is the time of year when samples are collected all over the province and processed at the lab for our overwintering surveys. Andy and Matt take a lead role in this work and without them it would be very difficult or impossible to complete the surveys.

Super Bowl

During the Super Bowl, there was another football game of note between the big animals and the little animals. The big animals were crushing little animals and at half-time, the coach made a passionate speech to rally the little animals. At the start of the second half the big animals had the ball. The first play, the elephant got stopped for no gain. The second play, the rhino was stopped for no gain. On third down, the hippo was thrown for a 5 yard loss. The defense huddled around the coach and he asked excitedly, "Who stopped the elephant?" "I did," said the centipede. "Who stopped the rhino?" "Uh, that was me too," said the centipede. "And how about the hippo? Who hit him for a 5 yard loss?" "Well, that was me as well," said the centipede. "So where were you during the first half?" demanded the coach. "Well," said the centipede, "I was having my ankles taped."

Provincial Entomologist's Overview . . What's the Buzz?

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Forest Pests Go National

Forest pests are a natural hazard and an increasing threat to Canada's forests. There is uncertainty surrounding the frequency and intensity of future outbreaks due to factors such as climate change, changing land use patterns and the introduction of invasive alien species.

The economic consequences of these infestations for forests, forest industries and forest-based communities amount to annual losses of hundreds of millions of dollars; not to mention the ecological damage to millions of hectares of commercial and noncommercial forests. For these reasons, Canada needs an approach to forest pest management that is broad and knowledge-based.

That's why the Government of Canada, through Natural Resources Canada (NRCan), is investing $12.5 million for the development of a National Forest Pest Strategy (NFPS). The NFPS is a proactive, integrated response to the threat of forest pests that uses a national risk-analysis framework for decision-making by the many jurisdictions involved in pest management in Canada.

The strategy's main objective is to manage the risk of forest pests and diseases, native and alien, within a unified framework, by monitoring, detecting, evaluating and responding to them. The NFPS will benefit all Canadians by helping to maintain healthy forests and a viable forest sector.

The NFPS will allow governments, researchers, industry and other concerned groups:

- to coordinate their response to native and alien forest pests;
- to generate and share knowledge, decision-making tools and response options;
- to coordinate and target investments in pest-related science and technology; and
- to analyse and report national pest conditions, thereby reducing the severity of their impacts.

Successful implementation of the NFPS will require the collaboration of federal, provincial, territorial, and municipal governments, industry, First Nations and private land owners.

As a strategy participant, we are working on a range of projects including standardizing our provincial pest monitoring system and redesigning our data and information management system. The goal of these initiatives is to improve pest risk assessment as well as analytical, forecasting and reporting capabilities both provincially and nationally.

'Til next time

Gina

Gina Penny
Provincial Entomologist

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Monitor Watch

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Robins in the front, snowbirds in the back

Keith Moore

I love this time of year. Crisp fall days are signaling us of the change to come . . . This past weekend there were robins on the front lawn and snowbirds at the pasture gate. Some were leaving and some were arriving: another sign of change. It was the same in the insect world. I noticed a clump of bright yellow dandelions with lots of yellow hover flies buzzing around them. A cool -4°C with a northeast wind overnight left the dandelions singed but the hover flies frozen dead to the center of each bright yellow flower. Another season is done.

Balsam fir branches have been showing up at the lab since mid-August and I've been checking them for balsam gall midge. The numbers of samples are dwindling now that we're heading into November. I want to thank everyone who sent samples, it gave us a great snapshot of what is going on. Greatly appreciated.

Definition:
Inquiline - Species that lives in the nest, gall, or home of another . . . from the Latin inquilinus, "lodger" or "tenant"

In August, I could see the balsam gall midge (gall maker) and inquiline parasite inside the same gall. In some cases, the bright orange parasite had crowded out the gall midge or outnumbered it: in some cases by four to one. By mid-September, the gall midge larvae were starting to drop to the ground to pupate and overwinter.

By mid October, all that could be seen in the gall was the parasite in the gall and very few or no gall midge were left. When you look at Christmas tree lots now there are lots of brown galled needles with the bright orange parasites in them. Most of these parasites will leave the needles by December 1st to overwinter in the duff.

Fig.4 Balsam gall midge damage.
(Image - Ronald S. Kelley, Vermont Dept. of Forests, Parks & Recreation, Morrisville, VT.)

By December, the galled needles will have turned brown and the gall maker and the parasite will have left the gall to overwinter in the duff.

Tree growers/ harvester are telling me that by 21 October, we had the required amount of cool nights to harden the trees off this year. Mother nature is right on time! That makes for good post-harvest needle retention. However if you have trees that are heavily galled, you should not be harvesting these as those galled needles will definitely drop off. In most cases, they provide a good source of parasites to keep the balsam gall midge in check and, as most people have figured out we are at the top of the cycle for gall midge, these outbreaks usually last two to three years. I am expecting a downward drop in numbers next year. In most cases, the lots will take one to two years to recover from extreme balsam gall midge damage.

(Contd.)

There are a few lots, mostly in the western region: Yarmouth and Lunenburg Counties that have no parasites in the needle sample, (those growers have been alerted). This means that those gall midge populations are free to keep growing next spring. These lots will have to be monitored with yellow sticky cards next spring at bud break, to determine how plentiful the balsam gall midge population is . . . and whether treatment is necessary.

And What Will Winter Bring . . . Hmmmm?

Climatologists are saying that eastern Canada can expect a much easier winter this year than last. Milder, with less rain and snow. I expect those people living in NB are giving a collective sigh of relief as they were clearing their lanes last winter with skidders and heavy equipment . . . sometimes it's good to live in our slightly milder NS climate. Now my father predicts that this winter is going to "freeze up dry with not a lot of moisture." Hmm . . . a dry open winter? I can live with that. So long as we get some good snappy cold days. Have a great season, everyone and remember the only certain thing is that things will change.

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The Last Laugh(s)

A man was driving down a country road one day at 45 miles per hour when suddenly he noticed a 3-legged turkey running at the same speed beside his truck. Though he thought this odd, the man decided to speed up so he wouldn't cause an accident with the turkey.

The man sped up to 55 miles per hour, but low and behold, so did the 3-legged turkey.

The man then sped up to 65 miles per hour only to again be equaled in speed by the 3-legged turkey.

As the man watched in amazement, the turkey suddenly made a sharp left turn and took off down a side road toward a small farm.

The man quickly also made the left turn and followed the turkey to the small farm, parking out front.

Looking around the man found the farmer around back in the midst of many 3-legged turkeys.

After greeting the farmer, the man asked him why he was raising 3-legged turkeys.

"Well we figure," said the farmer, "that with an average family of 3 people, only 2 can have a turkey leg with an average turkey. But with a three-legged turkey, each member of the family can enjoy a turkey leg for of their own on Thanksgiving."

"That's pretty wise," said the man, who then asked "Well how do your 3-legged turkeys taste?"

"I don't know," said the farmer. "We've never been able to catch one."

The strong young man at the construction site was bragging that he could outdo anyone in a feat of strength. He made a special target of one of the older workmen. After several minutes, the older worker had enough. "Why don't you put your money where your mouth is?" he said. "I will bet a week's wages that I can haul something in a wheelbarrow over to that outbuilding that you won't be able to wheel back." "You're on, old man," the braggart replied. "Let's see what you got." The old man reached out and grabbed the wheelbarrow by the handles. Then, nodding to the young man, he said, "All right. Get in."